

Listing of claims

The present listing of the claims replaces all past listings of the claims:

1. (Currently Amended) A polymeric composition comprising at least one acrylic copolymer, said acrylic copolymer consisting of constituted of
 - (a) 90 to 99 mole-% of acrylic (AC) acrylonitrile (AN) monomer units and
 - (b) 1 to 10 mole-% of 2-acrylamido-2-methylpropane sulfonic acid (AMPS) and of at least one as a water-soluble comonomer unit.
2. (Cancelled)
3. (Currently Amended) The Ecomposition according to claim 1 or 2, wherein the 2-acrylamido-2-methylpropane sulfonic acid (AMPS) comonomer unit is an ionic monomer, particularly an anionic monomer.
4. (Cancelled)
5. (Currently Amended) The Ecomposition according to claim 1 3, comprising AMPS with a molar content in wherin the copolymer comprises of 1 to 10 mole %, particularly of 3 to 5 mole-% of 2-acrylamido-2-methylpropane sulfonic acid (AMPS).
6. Canceled.
7. Canceled.
8. Canceled.
9. Canceled.
10. Canceled.
11. (Withdrawn) Material for use in medical or biological applications

comprising a polymeric composition according to claim 1 involving a direct contact of the material with fluids and/or cells and/or tissues.

12. (Withdrawn) Material according to claim 11, wherein the material is a membrane, a film or a surface coating.

13. (Withdrawn) Material according to claim 11, wherein the material is employed as support for cells, particularly tissue cells, the cells being in contact with a fluid stream, which supplies the cells with nutrients and enables exchange of substances into the cells and outside the cells.

14. (Withdrawn) Material according to claim 13, wherein the same the tissue cells are hepatocytes.

15. (Withdrawn) Material according to claim 11, wherein the material is used in biohybrid or bioartificial organs.

16. (Withdrawn) Material according to claim 15, wherein the material is a membrane with immobilized organ cells, such as liver, pancreas, lung cells, and wherein the cells are separated from the fluid stream.

17. (Withdrawn) Material according to claims 11, wherein the material is used for medical applications within the body, such as implants or biosensors.

18. (Withdrawn) Membrane, film or coating essentially made up of a composition according to any one of claim 1.

19. (Withdrawn) Membrane, film or coating comprising a blend of a composition according to claim 1 and poly-acrylonitrile (PAN).

20. (Withdrawn) Membrane according to claims 18 being formed by a phase-inversion process.

21. (Withdrawn) Membrane according to claim 18, wherein the membrane is an asymmetric membrane, comprising an outer dense layer having an average pore size of 1 to 50 nm, particularly of 3 to 20 nm, more particularly of 5 to 12 nm.

22. (Withdrawn) Membrane according to claims 18, comprising a flat or hollow fibre membrane having at least a two-layer cross sectional structure substantially consisting of a dense surface layer and a porous bulk layer having finger-like pores communicating with the dense layer.

23. (Withdrawn) Membrane according to claim 18, having a rate of water flux through the membrane in the range of 1 to 10 l/m²hkPa, particularly of about 2 l/m²hkPa.

24. (Withdrawn) Membrane according to claim 18, having a cut-off in the range of 150 to 1,000 kDa, particularly of 200 to 600 kDa, more particularly of 300 to 400 kDa.

25. (Withdrawn) Method for producing a, comprising the steps of

(a) preparing a casting solution, which contains a polymeric composition comprising at least one acrylic copolymer constituted of 90 to 99 mole-% of acrylic (AC) monomer units and of at least one water-soluble comonomer unit dissolved in a suitable solvent;

(b) casting the solution on a support or extruding the solution through a suitable nozzle; and

(c) coagulating the cast or the extruded solution in a coagulation bath to form an asymmetric membrane.

26. (Withdrawn) Method according to claim 25, wherein the asymmetric membrane is subjected to a wet post-treatment in water or stream.

27. (Withdrawn) Method according to claim 25, wherein the casting solution is prepared to have a solid content of the polymeric composition of 15 to 25 weight-%.

28. (Withdrawn) Method according to claim 25, wherein the solvent is a polar solvent.

29. (Withdrawn) Method according to claim 25, wherein the coagulation is performed by a wet or wet-dry-wet process.

30. (Withdrawn) Method according to claim 25, wherein the casting solution is extruded through a tube-in-orifice type nozzle.

31. (New) The composition according to claim 1 wherein the 2-acrylamido-2-methylpropane sulfonic acid (AMPS) comonomer unit is anionic.